

COMMERCIAL AVIATION (CONTINUED)

The Christmas Rush

MOST people by now will have realised that the amount of mail being carried by air during the Christmas period on the Empire routes is very much greater than ever before, and all kinds and conditions of aeroplanes will be given the job of carrying it.

Among them will be *Mercury* and *Maia*, the upper and lower components of the composite aircraft, as well as three of Imperial Airways new 24-ton Short boats, *Cabot*, *Caribou*, and *Connemara*.

The floatplane will make five trips from England to Egypt, the first of which was scheduled to start last Saturday, and on each of these the 2,400 miles to Alexandria will be flown non-stop after being "composited" into the air. The three strengthened Short boats will be used on services as far as Kisumu on the South African route, and as far as Karachi on the Australian route. Altogether seventeen extra services by seaplane will be operated, in addition to the fifteen to be completed by landplane. Some of the flying boats will be completely stripped inside in order that all the space and payload may be utilised.

The landplane operations are interesting because the new route between Croydon and Calcutta will be covered for the first time in service, and the people in India will see their first A.W. Ensign. The route concerned, which has already been detailed in *Flight*, is by way of Paris, Marseilles, Rome, Naples, Malta, Benghazi, Alexandria, Lydda, Baghdad and Basra. All manner of H.P.42s, A.W. Atalantas, D.H.86s, and even an Avro 652 will go into harness, while on the Far Eastern section an Australian National Airways machine, presumably a Douglas D.C.3, will be used on the route between Sydney, Singapore and Calcutta.

Large-scale Testing

THE work of testing the really big transport machines which are now being built is one of considerable complication and must be planned with the utmost care. The first Boeing 314 Clipper, which is one of a fleet of six boats being produced for Pan-American Airways' oceanic services, has now finished its manufacturer's tests and has been taken over by the Civil Aeronautics Authority for official trials.

In the works tests, which were carried out under the command of Mr. E. T. Allen, a great deal of the internal space was taken up with test rigs of various kinds. For instance, on the control deck there were six different offices in which pressures, temperatures and vibrations were recorded and the readings of the various instruments were in certain cases permanently established by photographic methods. The bulk of the data was collected in a specially installed instrument board at the desk which, in normal operations, will be used by the captain.

As an instance of the sort of data which must be obtained, air pressure indications were recorded both at the points where the air entered and left the oil coolers in order that it could be seen how the cooling proceeded in various conditions. Temperatures were taken at the heads and bases of all the fourteen cylinders of one two-row Cyclone engine and at two cylinder heads and bases of each other engine, as well as at other accessory points such as magnetos, air intakes, and so forth.

During the taxiing tests a special station was set up in what will eventually be the radio operator's quarters, and in this a set of instruments, the readings for which were also photographed, registered rate of turn, roll, elevator, rudder and aileron angles, air speed and engine speed. Finally, in one of the wing mail compartments a further "laboratory" was set up to check the amplitude and frequency of vibration at various points. Altogether, the tests included eighty take-offs and landings, about 450 miles of taxiing, and some 5,000 miles of flying.

In general, the layout of the Boeing 314 is similar to that of the Short Empire boat in that the entire upper deck is reserved for the flying staff and freight. In a boat of such a size this permits the use of really adequate roominess for the six flight officers. This section of the boat has been carefully soundproofed so that the crew may talk in conversational tones. A special effort has been made to obtain light flying control in all axes, and this is obtained by providing special servo tabs for the control surfaces. A new advantage of full-feathering airscrews is seen in large machines of this kind, since if any trouble develops in any one of the four two-row Cyclones (1,500 h.p. maximum) it can be stopped entirely while mechanics reach and work on the engine concerned.

Lockheeds for Air Afrique

WE are becoming accustomed to the idea of buying American machines in Europe and even in this country for both Service and civil use. The latest order is from the French Air Ministry for three Lockheed Fourteens which will be used on the Air Afrique run to the Congo. The machines should be delivered in January.

British Airways, incidentally, have ordered two more for their West African service.

and D.C.4s for Australia

APPARENTLY Australian National Airways have placed an order for at least one of the new 40-passenger D.C.4s. This fact appears to be partially confirmed by the size of the new combined hangar administration and traffic building which the company is now putting up at the Kingsford-Smith Airport in Sydney.

No definite news is yet known about K.L.M.'s practical interest in this machine. They require larger types for their Far Eastern service in particular, and for several months pilots were being trained in tricycle technique with the aid of the company's Stearman-Hammond, which is now at Farnborough. One of the K.L.M. pilots, Cdr. Parmentier, of Mildenhall-Melbourne fame, recently went to Santa Monica to try out the prototype.

Ramadi and Portishead

ONE of the machines—the *Calpurnia*—being used by Imperial Airways for the work of carrying the Christmas mails on the Empire routes was wrecked on Lake Ramadi, Irak, last Sunday afternoon. At the time of going to press the radio officer, B. Bayne-Rees, had been found dead, Capt. E. H. Attwood, First Officer A. N. Spottiswoode and F. G. Ubee were reported missing, and the two other occupants, D. E. Anderson and D. B. Harrison, were injured.

At the time of the accident there was, according to reports, a severe sandstorm blowing, and the last wireless message from *Calpurnia* was one asking for a bearing from Lake Habbaniya, whither the machine was bound. Lake Ramadi is about fifteen miles from this base.

On Tuesday afternoon of last week, when on one of the company's scheduled instructional flights, a British Airways Lockheed Fourteen crashed at Redcliffe Bay, Portishead, near Bristol. In the circumstances the machine carried only the instructor, Cmdr. E. G. L. Robinson, and another of the company's pilots who was being trained in Fourteen technique, Cmdr. R. P. J. Leborgne.

For the moment the reason for the accident is not known, and it seems that even those who conduct the official enquiry will have little else to work on except the evidence of a few witnesses who saw the accident. After the machine had struck the rocks in the Bay, apparently in a steep turning attitude, it caught fire. Both pilots were killed instantly.

In the death of Cmdr. Robinson British Airways have lost one of their most experienced pilots. Of his 4,500 hours' experience, some of which was obtained while flying with Algoma Air Transport in Canada, more than 600 were spent in command of Junkers Ju.52 on the London-Berlin mail run. He was one of the first, if not the first, of British Airways pilots to handle the Fourteen. One of his colleagues, who had flown very many hours with him on his favourite service—the Berlin night mail—has said that he had seldom known a pilot more in love with his work or one who more thoroughly understood the principles of flying commercial machines. He continues, "All those who had the privilege of working with him will remember the generous manner in which he placed at their disposal the immense store of knowledge which he had accumulated in his fifteen years as a commercial pilot."

Cmdr. Leborgne learned to fly with the Royal Air Force in 1930, and, after service with Imperial Airways and British Airways, he flew for Northern and Scottish Airways during 1936 and 1937 before rejoining British Airways. This year he had been in command of Lockheed 10A's on the London-Stockholm service, and his total flying experience was 2,200 hours, more than 800 of which were spent in charge of Electras. He had just started a Fourteen course. The same colleague writes that "at first glance Bob Leborgne never gave one an inkling of the nature of his work. Taught to fly in the best school in the world—the R.A.F.—his complete mastery of the modern science employed in operating up-to-date aircraft under all, and particularly adverse, conditions is a great tribute to his capability in absorbing knowledge. I flew many hours with him, and am well aware of the immense feeling of security which his presence at the controls gave me."